

Amendments to the Specification:

Please amend the paragraph starting at page 1, line 11 and ending at page 1, line 16 to read, as follows.

--In image forming apparatuses, such as copying machines, printers, and facsimile apparatuses, using as developer two-component ~~tow-component~~ developer with main components of toner and carrier, toner is spent and a developer density in a developing apparatus gradually decreases as image formation proceeds.--

Please amend the paragraphs starting at page 2, line 21 and ending at page 3, line 6 to read, as follows.

--It is an object of the present invention to provide an image forming apparatus capable of appropriately performing a recovery operation after the output of a density sensor falls into an error level.

It is another object of the present invention to provide an image forming apparatus capable of appropriately controlling an image density subsequent to a recovery operation.

It is still another object of the present invention to provide an image forming apparatus capable of preventing occurrence of fogging and reducing variation in an image density subsequent to a recovery operation.--

Please amend the paragraph starting at page 3, line 23 and ending at page 3, line 25 to read, as follows.

--Fig. 4 is a flowchart ~~flow chart~~ showing a flow of recovery operation subsequent to detection of an anomalous condition of the developer density;--

Please amend the paragraphs starting at page 4, line 15 and ending at page 6, line 24 to read, as follows.

--Fig. 1 illustrates an image forming apparatus of a first embodiment according to the present invention. The image forming apparatus illustrated in Fig. 1 is directed to a four-color, ~~four-color~~ full color image forming apparatus of an electrophotographic system and a digital system. Fig. 1 is a longitudinal cross-sectional view schematically illustrating the structure of the image forming apparatus.

The image forming apparatus illustrated in Fig. 1 has an upper portion of a digital color image reader portion (simply referred to as a reader portion in the following description) R, ~~[[A,]]~~ and a lower portion of a digital color image printer portion (simply referred to as a printer portion in the following description) P, ~~[[B.]]~~

In the reader portion R, ~~[[A,]]~~ an original 30 is placed on an original support glass 31, a reflected-light image generated by exposure-scanning the original 30 with an exposure lamp 32 is condensed onto a full color sensor 34 by a lens 33, and color separation image signals are thus obtained. The color separation image signals are supplied to a video processing unit (not shown) through an amplifying circuit (not shown), and processed by the video processing unit. The thus-processed image signals are supplied to the printer portion P, ~~[[B.]]~~

In the printer portion P, ~~[[B,]]~~ a drum-type electrophotographic photosensitive member (hereinafter referred to as a photosensitive drum) 1 serving as an image bearing member is supported rotatably in a direction indicated by the arrow R1. In the neighborhood of the photosensitive drum 1, there are arranged a pre-exposure lamp 11, a corona charging device 2, an exposure optical system 3, a potential sensor 12, a developing

apparatus 4 (developing devices 4y, 4c, 4m and 4bk), an image density detecting sensor (a patch detecting sensor) 13, a transferring apparatus 5, a cleaning apparatus 6, and the like.

A laser scanner is used as the exposure optical system 3. In the laser scanner, the image signal supplied from the reader portion R [[A]] is converted into an optical signal by a laser output portion (not shown), laser light L is then reflected by a polygon mirror 3a, and the light is linearly scanned (raster scanned) on a surface of the photosensitive drum 1 through a lens 3b and a mirror 3c. An electrostatic latent image is thus formed on the surface of the photosensitive drum 1.

In the printer portion P, [[B,]] at the time of the image forming operation, the photosensitive drum 1 is rotated in the direction indicated by the arrow R1 at a predetermined process speed (a circumferential speed), and the surface of the photosensitive drum 1 is uniformly charged at a predetermined potential of a predetermined polarity by the corona charging device 2 after charges on the surface of the photosensitive drum 1 are removed by the pre-exposure lamp 11. After that, the surface of the photosensitive drum 1 is irradiated with laser light L for each separated color by the exposure optical system 3 to form an electrostatic latent image on the surface of the photosensitive drum 1.--

Please amend the paragraph starting at page 18, line 11 and ending at page 18, line 20 to read, as follows.

--Generally, the density of developer in the developer container 44 is controlled such that the output value of the developer density detecting sensor 42 can be always kept near a target value as illustrated in Fig. 3. In other words, the rotation period of time of the

motor 53 in the toner supplying apparatus 49 is controlled such that the developer density can be always kept at the target value. An actual density during this controlling operation is indicated by I [[A]] in Fig. 3.--

Please amend the paragraph starting at page 19, line 11 and ending at page 19, line 15 to read, as follows.

--However, when the developer density varies as indicated by II [[B]] in Fig. 3, there is a possibility of a case where a toner supply is fallen under an anomalous condition, for example, a case where no toner is present in the toner supplying apparatus 49.--

Please amend the paragraph starting at page 19, line 24 and ending at page 20, line 14 to read, as follows.

--When the above density error occurs, the CPU 50 controls a recovery operation (supply of toner and control of the image density) for recovering the density error from a condition under which image formation is forcibly prohibited in conformity with the flow chart shown in Fig. 4. In the following discussion, with respect to a target value 1 (a target value (a final target value) at the time prior to occurrence of the density error), a target value 2 (a target value at a first stage), a target value 3 (a target value at a second stage), and a target value 4 (a target value at a third stage), the relationship of  $T1 > T3 > T2 > T4$  ·  $T1 > T2 > T3 > T4$  is established where T1, T2, T3 and T4 are variation amounts of those target values 1, 2, 3 and 4 from the error level, respectively. Here, the target values T2, T3 and T4 other than the final target value 1 are assumptive target values, respectively.--

Please amend the paragraph starting at page 21, line 9 and ending at page 22, line 8 to read, as follows.

--More specifically, the target value 2 is set and operation is started (S1) as shown in the flowchart ~~flow chart~~ in Fig. 4. Then, sampling of a developer density signal is performed by the developer density detecting sensor 42, and agitation is performed by the agitating and carrying screws 43a and 43b (S2). Further, supply and agitation of toner are executed (S3). Judgment whether the sampling signal exceeds the target value 2 or not is made (S4). Here, in the event that the sampling signal does not exceed the target value 2, judgment if a predetermined period of time has passed, or if a predetermined number of supply operations have been performed is made (S5). If the result is "NO", the step 3 is regained, and supply and agitation of toner are again executed. The steps S3, S4 and S4 are repeated until the sampling signal exceeds the target value 2. In the event of "YES" in the above step 5, warning is displayed on an operation panel or the like such that a user can be informed of an anomalous condition of the toner supply operation (S6).--

Please amend the paragraph starting at page 22, line 8 and ending at page 22, line 17 to read, as follows.

--When toner is supplied at the first stage (I), the toner is sufficiently mixed in the entire developer, and is given a satisfactory charge amount. Hence, the entire developer can have a uniform density and a uniform charge amount. Then, the output value of the developer density detecting sensor 42 is sampled, and a thus-detected present value is set as the target value 3. The target value 3 is closer to the target value 1 than the target value 2.  
[[is.]]--